



Shine

A real-time & personal singing coach for singers with hearing loss
Enjoy singing confidently with tailored guide on your pitch

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How might we design a tool to assist
singers with hearing loss to
independently help themselves
develop sense of musical pitch and sing confidently?

How to sing on pitch in a music group (chorus, singing class) ?

People with normal hearing can do these:

1. Recognize pitches from **our own voice**
2. Recognize pitches from **voices of other reference** (other people / accompanying instrument)
3. **Tell the difference** between our own voice & voices of other reference
4. **Adjust** our own voice to match other reference
5. Get used to the correct **pitch interval** and sing better next time

But, if you're hard of hearing, you have to find other ways.

User (hearing loss singers) 's Goals & Needs

- **Goal**

- Have the ability to train themselves to sing confidently while rehearsal/performing
- Have the ability to develop sense of musical pitches

- **Needs**

- Needs to figure out **what they have to do** to fix it when they sing out of tune (**higher? lower? how much?**)
- Needs to focus on **how to better develop sense of music pitches** when practicing
- Needs to memorize the **physical feeling of correct pitches** when singing
- Needs to **practice independently** (instead of relying on assistance from other singers with normal hearing)
- Needs an assistive listening device which is
 - A augmentation tool when user is reading music scores while practicing singing
 - Easy to use / learn

Scenario: Pre-rehearsal Practice

- **Goal**

- Independently self-practice before rehearsal
- Have the ability to train themselves and evaluate the result
- Get familiar with the physical feeling before rehearsal/performance
- Gain confidence & reduce nervousness during rehearsal/performance

- **Device**

- iPhone
- Apple watch

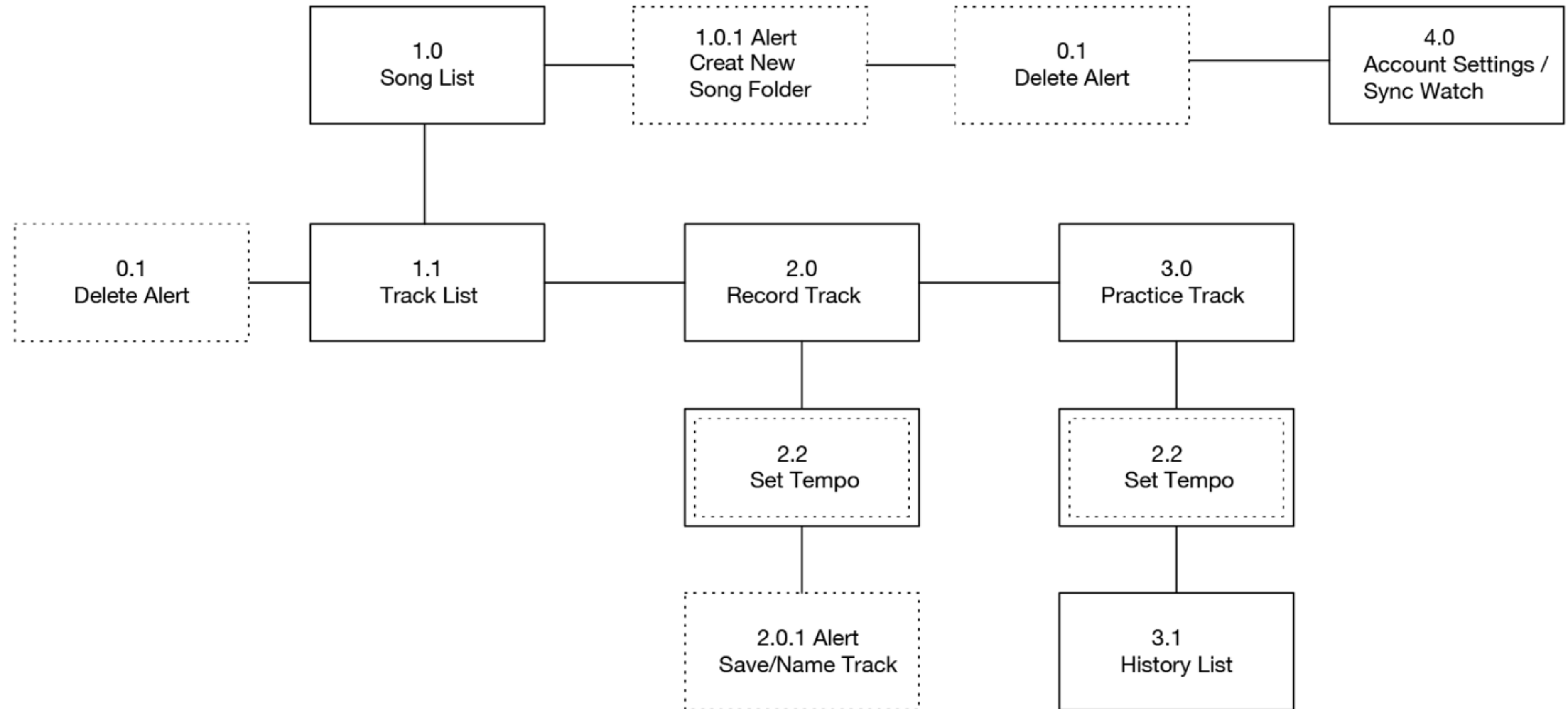
- **Place**

- Home / Stay alone in a quiet place

Task Flow

App map

Shine App Map



Alerts



Prototype

- <https://marvelapp.com/c1id8h>

Discussion

- Have an information button when adding new record
- Metronome setting
- History (of last practice) in the background when practicing, or (arrow) hints?
- Add new folder vs Record new phrase
- Watch: keep the wrist up?

Playtest

- Task 1: Record a new musical phrase of Twinkle Twinkle Little Star
- Task 2: Practice that new musical phrase
- Task 3: Check the practice result and evaluate how well the practice was
- Task 4: Practice again and change the tempo
- Task 5: Check the practice history
- Task 6: Add a new song folder